

RAW SEQUENCE LISTING  
PATENT APPLICATION US/09/756,551DATE: 03/13/2001  
TIME: 23:08:43

INPUT SET: S36499.raw

This Raw Listing contains the General  
Information Section and up to the first 5 pages.

## SEQUENCE LISTING

ENTERED

1  
2  
3 (1) General Information:  
4  
5 (i) APPLICANTS: C. Morrow et al.  
6  
7 (ii) TITLE OF INVENTION: ENCAPSIDATED RECOMBINANT VIRAL  
8 NUCLEIC ACID AND METHODS OF MAKING AND  
9 USING SAME  
10  
11 (iii) NUMBER OF SEQUENCES: 23  
12  
13 (iv) CORRESPONDENCE ADDRESS:  
14 (A) ADDRESSEE: LAHIVE & COCKFIELD  
15 (B) STREET: 28 STATE STREET  
16 (C) CITY: BOSTON  
17 (D) STATE: MASSACHUSETTS  
18 (E) COUNTRY: USA  
19 (F) ZIP: 02109  
20  
21 (v) COMPUTER READABLE FORM:  
22 (A) MEDIUM TYPE: Floppy disk  
23 (B) COMPUTER: IBM PC compatible  
24 (C) OPERATING SYSTEM: PC-DOS/MS-DOS  
25 (D) SOFTWARE: ASCII  
26  
27 (vi) CURRENT APPLICATION DATA:  
28 (A) APPLICATION NUMBER: 09/756,551  
29 (B) FILING DATE:  
30 (C) CLASSIFICATION:  
31  
32 (vii) PRIOR APPLICATION DATA:  
33 (A) APPLICATION NUMBER: 08/987,867  
34 (B) FILING DATE:  
35  
36 (vii) PRIOR APPLICATION DATA:  
37 (A) APPLICATION NUMBER: US 08/087,009  
38 (B) FILING DATE: 01-JUL-1993  
39  
40 (viii) ATTORNEY/AGENT INFORMATION:  
41 (A) NAME: Myers, Louis  
42 (B) REGISTRATION NUMBER: 35,965  
43 (C) REFERENCE/DOCKET NUMBER: UAP-004CPDV  
44  
45 (ix) TELECOMMUNICATION INFORMATION:  
46 (A) TELEPHONE: (617) 227-7400

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47 (B) TELEFAX: (617) 742-4214  
48  
49  
50 (2) INFORMATION FOR SEQ ID NO:1:  
51  
52 (i) SEQUENCE CHARACTERISTICS:  
53 (A) LENGTH: 14 base pairs  
54 (B) TYPE: nucleic acid  
55 (C) STRANDEDNESS: single  
56 (D) TOPOLOGY: linear  
57  
58 (ii) MOLECULE TYPE: cDNA  
59  
60  
61  
62 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:1:  
63  
64 TATTAGTAGA TCTG  
65  
66 (2) INFORMATION FOR SEQ ID NO:2:  
67  
68 (i) SEQUENCE CHARACTERISTICS:  
69 (A) LENGTH: 14 base pairs  
70 (B) TYPE: nucleic acid  
71 (C) STRANDEDNESS: single  
72 (D) TOPOLOGY: linear  
73  
74 (ii) MOLECULE TYPE: cDNA  
75  
76  
77  
78 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:2:  
79  
80 TACAGATGTA CTAA  
81  
82 (2) INFORMATION FOR SEQ ID NO:3:  
83  
84 (i) SEQUENCE CHARACTERISTICS:  
85 (A) LENGTH: 845 base pairs  
86 (B) TYPE: nucleic acid  
87 (C) STRANDEDNESS: single  
88 (D) TOPOLOGY: linear  
89  
90 (ii) MOLECULE TYPE: cDNA  
91  
92  
93 (ix) FEATURE:  
94 (A) NAME/KEY: CDS  
95 (B) LOCATION: 20..845  
96  
97  
98 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:3:  
99

14

14

# RAW SEQUENCE LISTING PATENT APPLICATION US/09/756,551

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100	ACACAGCAAT CAGGTCAGC CAA AAT TAC CCT ATA GTG CAG AAC ATC CAG GGG	52
101	Gln Asn Tyr Pro Ile Val Gln Asn Ile Gln Gly	
102	1 5 10	
103		
104	CAA ATG GTA CAT CAG GCC ATA TCA CCT AGA ACT TTA AAT GCA TGG GTA	100
105	Gln Met Val His Gln Ala Ile Ser Pro Arg Thr Leu Asn Ala Trp Val	
106	15 20 25	
107		
108	AAA GTA GTA GAA GAG AAG GCT TTC AGC CCA GAA GTG ATA CCC ATG TTT	148
109	Lys Val Val Glu Glu Lys Ala Phe Ser Pro Glu Val Ile Pro Met Phe	
110	30 35 40	
111		
112	TCA GCA TTA TCA GAA GGA GCC ACC CCA CAA GAT TTA AAC ACC ATG CTA	196
113	Ser Ala Leu Ser Glu Gly Ala Thr Pro Gln Asp Leu Asn Thr Met Leu	
114	45 50 55	
115		
116	AAC ACA GTG GGG GGA CAT CAA GCA GCC ATG CAA ATG TTA AAA GAG ACC	244
117	Asn Thr Val Gly Gly His Gln Ala Ala Met Gln Met Leu Lys Glu Thr	
118	60 65 70 75	
119		
120	ATC AAT GAG GAA GCT GCA GAA TGG GAT AGA GTG CAT CCA GTG CAT GCA	292
121	Ile Asn Glu Glu Ala Ala Glu Trp Asp Arg Val His Pro Val His Ala	
122	80 85 90	
123		
124	GGG CCT ATT GCA CCA GGC CAG ATG AGA GAA CCA AGG GGA AGT GAC ATA	340
125	Gly Pro Ile Ala Pro Gly Gln Met Arg Glu Pro Arg Gly Ser Asp Ile	
126	95 100 105	
127		
128	GCA GGA ACT ACT AGT ACC CTT CAG GAA CAA ATA GGA TGG ATG ACA AAT	388
129	Ala Gly Thr Thr Ser Thr Leu Gln Glu Gln Ile Gly Trp Met Thr Asn	
130	110 115 120	
131		
132	AAT CCA CCT ATC CCA GTA GGA GAA ATT TAT AAA AGA TGG ATA ATC CTG	436
133	Asn Pro Pro Ile Pro Val Gly Glu Ile Tyr Lys Arg Trp Ile Ile Leu	
134	125 130 135	
135		
136	GGA TTA AAT AAA ATA GTA AGA ATG TAT AGC CCT ACC AGC ATT CTG GAC	484
137	Gly Leu Asn Lys Ile Val Arg Met Tyr Ser Pro Thr Ser Ile Leu Asp	
138	140 145 150 155	
139		
140	ATA AGA CAA GGA CCA AAG GAA CCC TTT AGA GAC TAT GTA GAC CGG TTC	532
141	Ile Arg Gln Gly Pro Lys Glu Pro Phe Arg Asp Tyr Val Asp Arg Phe	
142	160 165 170	
143		
144	TAT AAA ACT CTA AGA GCC GAG CAA GCT TCA CAG GAG GTA AAA AAT TGG	580
145	Tyr Lys Thr Leu Arg Ala Glu Gln Ala Ser Gln Glu Val Lys Asn Trp	
146	175 180 185	
147		
148	ATG ACA GAA ACC TTG TTG GTC CAA AAT GCG AAC CCA GAT TGT AAG ACT	628
149	Met Thr Glu Thr Leu Leu Val Gln Asn Ala Asn Pro Asp Cys Lys Thr	
150	190 195 200	
151		
152	ATT TTA AAA GCA TTG GGA CCA GCG GCT ACA CTA GAA GAA ATG ATG ACA	676

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153 Ile Leu Lys Ala Leu Gly Pro Ala Ala Thr Leu Glu Glu Met Met Thr
154      205                      210                      215
155
156 GCA TGT CAG GGA GTA GGA GGA CCC GGC CAT AAG GCA AGA GTT TTG GCT      724
157 Ala Cys Gln Gly Val Gly Gly Pro Gly His Lys Ala Arg Val Leu Ala
158 220                      225                      230                      235
159
160 GAA GCA ATG AGC CAA GTA ACA AAT TCA GCT ACC ATA ATG ATG CAG AGA      772
161 Glu Ala Met Ser Gln Val Thr Asn Ser Ala Thr Ile Met Met Gln Arg
162      240                      245                      250
163
164 GGC AAT TTT AGG AAC CAA AGA AAG ATT GTT AAG TGT TTC AAT TGT GGC      820
165 Gly Asn Phe Arg Asn Gln Arg Lys Ile Val Lys Cys Phe Asn Cys Gly
166      255                      260                      265
167
168 AAA GAA GGG CAC ACA GCC AGA AAG T      845
169 Lys Glu Gly His Thr Ala Arg Lys
170      270                      275
171
172
173 (2) INFORMATION FOR SEQ ID NO:4:
174
175 (i) SEQUENCE CHARACTERISTICS:
176 (A) LENGTH: 275 amino acids
177 (B) TYPE: amino acid
178 (D) TOPOLOGY: linear
179
180 (ii) MOLECULE TYPE: protein
181
182 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:4:
183
184 Gln Asn Tyr Pro Ile Val Gln Asn Ile Gln Gly Gln Met Val His Gln
185 1                      5                      10                      15
186
187 Ala Ile Ser Pro Arg Thr Leu Asn Ala Trp Val Lys Val Val Glu Glu
188      20                      25                      30
189
190 Lys Ala Phe Ser Pro Glu Val Ile Pro Met Phe Ser Ala Leu Ser Glu
191      35                      40                      45
192
193 Gly Ala Thr Pro Gln Asp Leu Asn Thr Met Leu Asn Thr Val Gly Gly
194      50                      55                      60
195
196 His Gln Ala Ala Met Gln Met Leu Lys Glu Thr Ile Asn Glu Glu Ala
197      65                      70                      75                      80
198
199 Ala Glu Trp Asp Arg Val His Pro Val His Ala Gly Pro Ile Ala Pro
200      85                      90                      95
201
202 Gly Gln Met Arg Glu Pro Arg Gly Ser Asp Ile Ala Gly Thr Thr Ser
203      100                     105                     110
204
205 Thr Leu Gln Glu Gln Ile Gly Trp Met Thr Asn Asn Pro Pro Ile Pro

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206          115          120          125
207
208 Val Gly Glu Ile Tyr Lys Arg Trp Ile Ile Leu Gly Leu Asn Lys Ile
209      130          135          140
210
211 Val Arg Met Tyr Ser Pro Thr Ser Ile Leu Asp Ile Arg Gln Gly Pro
212 145          150          155          160
213
214 Lys Glu Pro Phe Arg Asp Tyr Val Asp Arg Phe Tyr Lys Thr Leu Arg
215          165          170          175
216
217 Ala Glu Gln Ala Ser Gln Glu Val Lys Asn Trp Met Thr Glu Thr Leu
218          180          185          190
219
220 Leu Val Gln Asn Ala Asn Pro Asp Cys Lys Thr Ile Leu Lys Ala Leu
221          195          200          205
222
223 Gly Pro Ala Ala Thr Leu Glu Glu Met Met Thr Ala Cys Gln Gly Val
224 210          215          220
225
226 Gly Gly Pro Gly His Lys Ala Arg Val Leu Ala Glu Ala Met Ser Gln
227 225          230          235          240
228
229 Val Thr Asn Ser Ala Thr Ile Met Met Gln Arg Gly Asn Phe Arg Asn
230          245          250          255
231
232 Gln Arg Lys Ile Val Lys Cys Phe Asn Cys Gly Lys Glu Gly His Thr
233          260          265          270
234
235 Ala Arg Lys
236      275
237
238 (2) INFORMATION FOR SEQ ID NO:5:
239
240 (i) SEQUENCE CHARACTERISTICS:
241 (A) LENGTH: 948 base pairs
242 (B) TYPE: nucleic acid
243 (C) STRANDEDNESS: single
244 (D) TOPOLOGY: linear
245
246 (ii) MOLECULE TYPE: cDNA
247
248
249 (ix) FEATURE:
250 (A) NAME/KEY: CDS
251 (B) LOCATION: 4..946
252
253
254 (xi) SEQUENCE DESCRIPTION: SEQ ID NO:5:
255
256 AAC CAA TGG CCA TTG ACA GAA GAA AAA ATA AAA GCA TTA GTA GAA ATT
257 Gln Trp Pro Leu Thr Glu Glu Lys Ile Lys Ala Leu Val Glu Ile
258      1          5          10          15

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**SEQUENCE VERIFICATION REPORT**  
**PATENT APPLICATION US/09/756,551**

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Line	Error	Original Text
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